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FACSIMILE COVER SHEET

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TOTAL NUMBER OF PAGES (INCLUDING COVER SHEET): 4

ADDITIONAL MESSAGE: _____

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Date: Wed, 14 May 1997 09:56:38 -0700
To: Don D Lord <Donald.D.Lord@jpl.nasa.gov>
From: Steven Friedman <Steven.Z.Friedman@jpl.nasa.gov>
Subject: Statement of work
Cc: Reed.E.Wilcox@jpl.nasa.gov

Don,

Attached is a statement of work for the cost estimation. The charge number to be used is 567-113B8-0-3110. The maximum work time allowed for this effort is 40 hours.

Please contact me if you have any questions.

Steve

Attachment Converted: C:\EUDORA\ATTACHS\Proposal.doc

**Statement of Work
Cost Estimate for CMIS Migration to PowerBuilder**

1. Provide an estimate of cost, workforce, and schedule for the migration of CMIS applications, now written in FoxPro, to PowerBuilder. Three applications should be independently costed:
 2. Action Item Tracker
 3. Budget Change Request
 4. Electronic Change Management System
5. Schedule: Assume start by 1 July, 1997 and completion of all work by 30 June 1998.
6. Workforce: Assume all three applications will be migrated concurrently. Estimate sufficient workforce should be provided to code, document and test software.
7. Programming Language: All programming shall be done using PowerBuilder 5.x (latest version).
8. Database: The current back end database is Oracle (V 7.3), but the software shall be designed in such a manner to support easy change out of the database.
9. Software Architecture: Software shall be designed in such a manner to support a distributed (three-tier) implementation with PowerBuilder clients and Application Servers. Software developers shall utilize the PowerBuilder supplied class libraries (PFC) as well as those libraries developed at JPL for migration of CMIS software to PowerBuilder.
10. Platforms: Applications shall be developed to support implementation on the following platforms:
 11. PC
 12. MAC
 13. UNIX (Sun Solaris)
 14. Web

PC and Web clients and supportive Application Servers shall be developed as required to conform to the basic architectural specifications. In order to support cross platform development, no API calls shall be used. The use of fonts shall also be constrained.

Porting to other platforms: Provide individual cost estimates for porting of those applications to the MAC and UNIX in addition to the PC and Web. JPL may choose to do porting to MAC and UNIX in house after delivery of the PC and web versions.
15. Guidance and Oversight: All software development and documentation will be reviewed and approved by JPL software developers also working on CMIS migration. They shall have full control over the acceptability of all deliverables.
16. JPL will provide demonstration and sample printout from the three applications to be costed. Additionally, JPL will provide copies of the FoxPro code for the three modules to help with evaluation of the cost associated with migration to PowerBuilder. Note, the software is copyrighted, and as such, cannot be used for any purposes other than cost estimation.

17. Configuration Controls: All software shall be stored on a JPL server. PowerSoft's ObjectCycle, or a similar "JPL approved" tool shall be used for configuration management.